AMENDMENT UNDER 37 C.F.R. § 1.114(c) Attorney Docket No.: Q65283

Application No.: 10/003,417

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

Claims 1-5 (canceled).

6. (currently amended): A wireless communication apparatus for transmitting and

receiving data wirelessly with a counterpart wireless communication apparatus in an ad hoc

network, comprising:

a transmitting portion arranged for transmitting data to the counterpart wireless

communication apparatus through a plurality of frequency channels; and

a controller arranged to confirm the characteristics of data for transmission, divide the

data into a number of pieces of data according to the data characteristics, allot the data to a

predetermined number of channels, first transmit the data to a counterpart wireless

communication apparatus, subsequently determine whether the counterpart wireless

communication apparatus receives the data through the respective channels, to thereby obtain the

number of transmittable channels to the counterpart wireless communication apparatus for

communication, and transmit the data according to the obtained number transmittable frequency

channels,

wherein when the data for transmission is real-time data, the controller divides the data

into grades to grade basic information for utilization of the real-time data for the highest level,

allots the grades from the basic channel to additional channels according to the grades, and when

the data for transmission is non-real-time data, the controller simply divides the data into a

plurality of pieces of data, and allots the data to the plurality of frequency channelsa controller

2

Application No.: 10/003,417

Attorney Docket No.: Q65283

arranged to obtain a number of transmittable frequency channels of the counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with, by transmitting data to the counterpart wireless communication apparatus through a plurality of frequency channels and determining whether the counterpart wireless communication apparatus receives the data in the respective channels, and the controller arranged to transmit the data through the transmitting portion to the counterpart wireless communication apparatus according to the obtained number of transmittable frequency channels.

- 7. (previously presented): The wireless communication apparatus of claim 6, wherein the plurality of frequency channels include a basic channel for supporting a communication with other wireless communication apparatuses having a single channel, and a plurality of additional channels consecutively or inconsecutively positioned with respect to the basic channel.
- 8. (original) The wireless communication apparatus of claim 7, wherein, while transmitting the data in parallel, the controller applies a frequency hopping pattern to the plurality of additional channels, corresponding to a frequency hopping pattern applied to the basic channel.

Claims 9 -16 (canceled).

17. (currently amended): A method of a wireless communication apparatus for transmitting and receiving data wirelessly, comprising:

confirming data characteristics for transmission;

dividing the data according the confirmed data characteristics, allotting the respective divided data to a predetermined number of frequency channels, and first transmitting the data to the wireless communication apparatus;

Application No.: 10/003,417

Attorney Docket No.: Q65283

confirming whether the counterpart wireless communication apparatus receives data through which frequency channel;

dividing the data for transmission by a number of a plurality of frequency channels, and transmitting the data to a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with,

wherein, when the data for transmission is real time data, the operations of dividing and allotting divides the data into grades to grade basic information for utilization of the real-time data for the highest level, allots the grades from the basic channel to additional channels according to the grades, and when the data for transmission is non-real-time data, the operations of dividing and allotting divide the data into a plurality of pieces of data, and allot the data to the plurality of frequency channels, and

wherein, when the counterpart wireless communication apparatus receives the data only through one frequency channel, the data is transmitted through a basic channel.

said method further comprising the steps of: obtaining a number of transmittable frequency channels of a counterpart wireless communication apparatus that the wireless communication apparatus intends to communicate with, by checking whether the counterpart wireless communication apparatus receives the data in the respective channels; and processing to transmit the data according to the transmittable frequency channels to the counterpart wireless communication apparatus.

18. (original) The method of claim 17, wherein the plurality of frequency channels comprise a basic channel for supporting a communication with other wireless communication apparatuses having a single channel, and a plurality of additional channels consecutively or inconsecutively positioned with respect to the basic channel.

Application No.: 10/003,417

Attorney Docket No.: Q65283

19. (original) The method of claim 17, wherein, when the data is transmitted in parallel, a frequency hopping pattern is applied to the plurality of additional channels, corresponding to a frequency hopping pattern applied to the basic channel.

Claims 20-23 (canceled).

24. (currently amended): A wireless communication system comprising a plurality of wireless communication apparatuses operated as a master or a slave, wherein the wireless communication apparatus operated as the master confirms data characteristics for communication, and when the data for transmission is real time data, the wireless communication apparatus divides the data into grades to grade basic information for utilization of the real-time data for the highest level, allots the grades from the basic channels to additional channels according to the grades, and when the data for transmission is non-real-time data, the wireless communication apparatus divides the data into a plurality of pieces of data, and allots the data to the plurality of frequency channels, and the wireless communication apparatus checks whether the counterpart wireless communication apparatus receives the data in the respective channel, acquires the number of the transmittable frequency channels of the counterpart wireless communication apparatus, and transmits the data to the wireless communication apparatus operated as the slave according to the obtained number of transmittable channels divides data for transmission by a number of a plurality of frequency channels, obtains a number of transmittable frequency channels of a counterpart wireless communication apparatus by transmitting data to the counterpart wireless communication apparatus through the plurality of frequency channels and checking whether the counterpart wireless communication apparatus receives the data in the respective channels, and transmits the data to a wireless communication apparatus operated as the slave.

Application No.: 10/003,417

Claims 25-26 (canceled).

Attorney Docket No.: Q65283